

059044  
CASE 4-21001B/C1 2/22

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Hesna J. Pfeiffer  
Type or print name

*Hesna J. Pfeiffer*  
Signature

3/27/02  
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

SCHUPP ET AL.

APPLICATION NO: 10/042,665

FILED: JANUARY 9, 2002

FOR: RIFAMYCIN BIOSYNTHESIS GENE CLUSTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

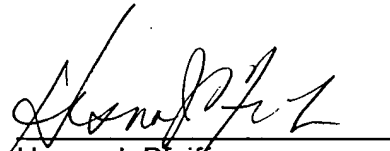
This paper is being filed within three months of the filing date of the application. Therefore, no fees are required. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 19-0134.

In accordance with 37 C.F.R. §1.56, applicants wish to call the Examiner's attention to the references cited on the attached form(s) PTO-1449.

The listed references are of record in parent Application No. 09/242,744 filed March 24, 1999 and in instant PCT application PCT/EP97/04495 filed August 18, 1997, and copies are available therein. However, applicants are willing to send copies of any or all of these references at the Examiner's request.

The Examiner is requested to consider the foregoing information in relation to this application and indicate that each reference was considered by returning a copy of the initialed PTO 1449 form(s).

Respectfully submitted,



Hesna J. Pfeiffer  
Attorney for Applicants  
Reg. No. 22,640  
(908) 522-6940

Novartis Corporation  
Patent and Trademark Dept.  
564 Morris Avenue  
Summit, NJ 07901-1027

Date: 3/27/02

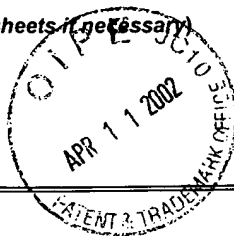
FORM PTO-1449  
(REV. 7-85)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOC NO.  
4-21001B/C1  
APPLICATION NO.  
10/042,665  
APPLICANT  
SCHUPP ET AL.  
FILING DATE  
January 9, 2002

Group



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AM	WO 87/03907	7/2/87	PCT			<input type="checkbox"/>	<input type="checkbox"/>
	AN	WO 95/08548	3/30/95	PCT			<input type="checkbox"/>	<input type="checkbox"/>
	AO						<input type="checkbox"/>	<input type="checkbox"/>
	AP						<input type="checkbox"/>	<input type="checkbox"/>
	AQ						<input type="checkbox"/>	<input type="checkbox"/>

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	AR	Aparicio et al., Gene, Vol. 169, "Organization of the biosynthetic gene cluster for rapamycin in <i>Streptomyces hygroscopicus</i> : analysis of the enzymatic domains in the modular polyketide synthase," pp. 9-16 (1996)
	AS	Bhat K.S., Gene, Vol. 134, "Generation of a plasmid vector for deletion cloning by rapid multiple site-directed mutagenesis," pp. 83-87 (1993)
	AT	Birnboim H.C., Methods in Enzymology, Vol. 100, "A Rapid Alkaline Extraction Method for the Isolation of Plasmid DNA," pp. 243-255 (1983)

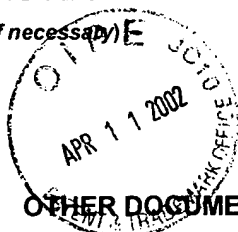
EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOC. NO.  
4-21001B/C1  
APPLICATION NO.  
10/042,665  
APPLICANT  
SCHUPP ET AL.  
FILING DATE  
January 9, 2002

Group

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

AU	Bonfield and Staden, Nucleic Acids Research, Vol. 23 (8), "The application of numerical estimates of base calling accuracy to DNA sequencing projects," pp. 1406-1410 (1995)
AV	Chater K., Ciba Foundation Symposium 171, "Genetic regulation of secondary metabolic pathways in Streptomyces," in <u>Secondary Metabolites: Their Function and Evolution</u> , John Wiley & Sons, pp. 144-162 (1992)
AW	Donadio and Katz, Gene, Vol. 111, "Organization of the enzymatic domains in the multifunctional polyketide synthase involved in erythromycin formation in <i>Saccharopolyspora erythraea</i> ," pp. 51-60 (1992)
AX	Donadio et al., Science, Vol. 252, "Modular Organization of Genes Required for Complex Polyketide Biosynthesis," pp. 675-679 (1991)
AY	Ghisalba et al., "The Rifamycins: Properties, Biosynthesis, and Fermentation," in <u>Biotechnology of Industrial Antibiotics</u> , E.J. Vandamme (Ed.), pp. 281-327, Marcel Dekker, Inc. (1984)
AZ	Hopwood D.A., Current Opinion in Biotechnology, Vol. 4, "Genetic engineering of <i>Streptomyces</i> to create hybrid antibiotics," pp. 531-537 (1993)
BA	Hopwood et al.(ed.), <u>Genetic Manipulation of Streptomyces - A Laboratory Manual</u> , The John Innes Foundation, Norwich, pp. i - xii (1985) – preface and table of contents provided
BB	Hopwood et al., Ciba Foundation Symposium 171, "Genes for polyketide secondary metabolic pathways in microorganisms and plants," in <u>Secondary Metabolites: Their Function and Evolution</u> , John Wiley & Sons, pp. 88-112 (1992)
BC	Kieser and Melton, Gene, Vol. 65, "Plasmid pIJ699, a multi-copy positive-selection vector for <i>Streptomyces</i> ," pp. 83-91 (1988)
BD	Lal et al., Critical Reviews in Microbiology, Vol. 21(1), "Rifamycins: Strain Improvement Program," pp. 19-30 (1995)
BE	Lechevalier et al., Int. J. of Systematic Bacteriology, Vol. 36 (1), "Two New Genera of Nocardioform Actinomycetes: <i>Amycolata</i> gen. Nov. and <i>Amycolatopsis</i> gen nov., pp. 29-37 (1986)
BF	Madon et al., J. of Bacteriology, Vol. 173 (20), "Transformation System for <i>Amycolatopsis</i> ( <i>Nocardia</i> ) <i>mediterranei</i> : Direct Transformation of Mycelium with Plasmid DNA," pp. 6325-6331 (1991)
BG	Pospiech et al., Trends in Genetics, Vol. 11 (6), "A versatile quick-prep of genomic DNA from Gram-positive bacteria," pp. 217-128 (1995)
BH	Schupp and Divers, FEMS Microbiology Letters, Vol. 36, "Protoplast preparation and regeneration in <i>Nocardia mediterranei</i> ," pp. 159-162 (1986)

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOC. NO.  
4-21001B/C1  
APPLICATION NO.  
10/042,665  
APPLICANT  
SCHUPP ET AL.  
FILING DATE  
January 9, 2002

Group

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

BI	Schupp et al., J. of Bacteriology, Vol. 177 (13), "A <i>Sorangium cellulosum</i> (Myxobacterium) Gene Cluster for the Biosynthesis of the Macrolide Antibiotic Soraphen A: Cloning, Characterization, and Homology to Polyketide Synthase Genes from Actinomycetes," pp. 3673-3679 (1995)
BJ	Schwecke et al., Proc. Natl. Acad. Sci. USA, Vol. 92, "The biosynthetic gene cluster for the polyketide immunosuppressant rapamycin," pp. 7839-7843 (1995)
BK	Sensi et al., Farmaco Ed. Sci., Vol. 14, "Rifomycin, A New Antibiotic - Preliminary Report," pp. 146-147 (1959)
BL	Smith et al., Methods Enzymol., Vol. 151, "Strategies for Mapping and Cloning Macroregions of Mammalian Genomes," pp. 461-489 (1987)
BM	Thiemann et al., Arch. Mikrobiol., Vol. 67, "A Proposal for the Transfer of <i>Streptomyces mediterranei</i> Margalith and Beretta 1960 to the Genus <i>Nocardia</i> as <i>Nocardia mediterranea</i> (Margalith and Beretta) Comb. Nov.," pp. 147-155 (1969)
BN	Tsoi and Khosla, Chemistry & Biology, Vol. 2, "Combinatorial biosynthesis of 'unnatural' natural products: the polyketide example," pp. 355-362 (1995)
BO	Wahl et al., Proc. Natl. Acad. Sci. USA, Vol. 84, "Cosmid vectors for rapid genomic walking, restriction mapping, and gene transfer," pp. 2160-2164 (1987)
BP	Wehrli W., "Ansamycins - Chemistry, Biosynthesis, and Biological Activity," in <u>Topics in Current Chemistry</u> , Vol. 72, pp. 21-49 (1971)
BQ	Wehrli and Staehelin, Bacteriological Reviews, Vol. 35 (3), "Actions of the Rifamycins," pp. 290-309 (1971)
BR	Stratmann et al., Microbiology (1999), 145, 3365-3375
BS	Schupp et al., FEMS Microbiology Letters 159 (1998) 201-207
BT	Yu, T. et. al., (1999), PNAS USA 96, 9051-9056
BU	
BV	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.